



Wolf-spider genus *Ocyale* audouin, 1826 (Araneae: Lycosidae): a new species from Bangladesh

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Abstract

In this paper, taxonomic description of a new species *Ocyale tikaderi* n. sp. has been presented from Bangladesh. Illustrated description of the species together with generic diagnosis and distribution are also provided. Types are deposited in the Arachnology laboratory, Department of Zoology, Khulna Govt. Womens' College, Khulna, Bangladesh.

Keywords: New species, wolf-spider, *Ocyale*, Araneae, Lycosidae, Bangladesh.

Introduction

Wolf spiders (Family: Lycosidae) are one of the common, attractive ground dwelling members in the crop-fields of Bangladesh. They cannot spin any web but some members can make sheet-web on the grassland and crop-fields with an opening door outside. Some ground dwelling members are medium to large in size and can make whole or pit and are burrowing in habit. They are one of the important members of biological control agent of small insect pests of field crops and gardens.

Genus *Ocyale* Audouin is one of the small and common ground dwelling members in the crop fields of Bangladesh. The genus is cosmopolitan but majority are distributed in the tropical and sub-tropical countries. The genus was first established by Audouin in 1826 with the type-species *O. atalanta* Audouin. Currently, the genus is composed of 12 valid species in the world fauna (World Spider Catalog 2025) but no previous record in Bangladesh (Chowdhury & Nagari 1981, Okuma *et al.* 1993, Biswas 2009, Biswas and Raychaudhury 2003, 2007, 2014) although information are found in some other countries like – India (Pocock 1900, Gravely 1924, Sinha 1951, Tikader and Malhotra 1980, Gajbe 2004, Dhali *et al.* 2016); China (Yin and Peng 1997); Japan (Yaginuma 1986); the Philippines (Barrion & Litsinger 1995), Africa (Alderweireldt, 1996) etc. The present paper contains an illustrated description of the wolf spider species *Ocyale tikaderi* n. sp. which is identified from Bangladesh.

Materials and methods

The specimen was collected from rice fields of district Jhenaidah by hand-picking and was preserved in 70% ethanol after study. Finally, it was preserved in Audemans' Preservatives (90 parts 70% ethanol + 5 parts glycerine + 5 parts glacial acetic acid) following Lincoln and Sheals (1985) and Tikader (1987). Measurements and drawings were done under Stereozoom Binocular Microscope (SV8, Zeiss) and all measurements are taken in millimeter (mm). Carapace length was measured from the anterior margin to the rear margin of carapace medially. Eye sizes were measured as the maximum diameter in dorsal and frontal view. Measurements of legs are shown in the following sequences: femur, patella, tibia, metatarsus, tarsus and total. Epigynum was cleared in 10% KOH solution for 3-5 minutes and mounted temporarily for drawing (Levi 1965). Male palp was cleared by put it in clove oil for 10-12 hours and then mounted for drawing. Photographs were taken by DSLR camera with macrozoom lens.

Results and discussion

Systematics

Family: Lycosidae Sundevall 1833

Subfamily: Pardosinae Sundevall 1833

Genus: *Ocyale* Audouin 1826

Ocyale Audouin 1826 in Savigny's Description der Egypte Arachnides Paris, I: 150; Simon 1885, Ann. Soc. ent. Fr., 5 (6): 357; Pocock 1900, Fauna Brit. India, Arach:

251; Gravely 1924 Rec. Indian Mus., 26: 595; Sinha 1954, Rec. Indian Mus., 48 (2): 18; Strand 1907, Arach. Naturg., 73 (1, 3): 344; Fuhn and Burlacu 1971, Fam. Lycosidae Fauna Rep. Romania (Arach.), 5 (3): 253; Tikader and Malhotra 1980, Fauna of India, Lycosidae, 1 (2): 365; Platnick 1997 Adv. Spider Taxonomy: 561; Song *et al.* 1999, The Spiders of China: 329; Biswas 2009, Ency. Flora & fauna of Bangladesh, 18 (1): 225; World Spider Catalog, Version 25.5, Nat. Hist. Mus. Bern., online at ://www.wsc.nmbe.ch. (accessed on 7th August, 2025).

Diagnosis: Body small to medium, yellowish-brown in colour. Cephalothorax yellowish to brown, longer than wide. Maxillae always longer than wide, usually broader anteriorly. Labium nearly as wide as long or slightly longer than wide. Eyes of anterior row slightly recurved and of posterior 2 rows almost similar. Anterior spinnerets longer than the posterior ones with apical piece short and round.

Type-species: *Ocyale atalanta* Audouin 1826

Distribution: Asia, Africa, Europe.

Description of the species

***Ocyale tikaderi* n. sp.** (Figs. 1a – 1h; 2a-2b)

Material examined: 1 female (Holotype), rice-fields of village shikerpur, Dist. Jhenaidah, 08. VI. 2007, Coll. V. Biswas; 1 male (Allotype), from the same field area of Dist. Jhenaidah, 02. IV. 2008, Coll. V. Biswas; 2 females (Paratypes), from the same field area, Dist. Jhenaidah, 04. VI. 2008, Coll. V. Biswas.

General description (Holotype): Holotype (female) total length 17.00 mm; prosoma 8.50 mm long, 7.00 mm wide; opisthosoma 8.50 mm long, 6.00 mm wide. Color carapace (Fig. 1) brownish; eyes with deep black band; legs yellow with brownish patches; opisthosoma yellow with brown spots and transverse bands. Chelicerae dark brown, maxillae, labium brown and sternum yellow.

Cephalothorax (Holotype): Carapace longer than wide, wider below the middle, convex; fovea distinct at the middle of thoracic region; radii distinct, clothed with fine hairs and pubescence. Eyes unequal; anterior row slightly recurved; eyes of 2nd and 3rd row equal but larger than the eyes of anterior row; distance between the 3rd row of eyes wider than the 2nd; ocular quad anteriorly narrowing,

with a black semilunar band. Chelicerae dark brown, strong, inner margin with 3 and outer margin with 2 teeth (Fig. 1b). Maxillae brown, longer than wide, anteriorly wider and scopulate (Fig. 1c). Labium brown, slightly longer than wide, medially wide, anteriorly narrowing and scopulate (Fig. 1c). Sternum yellow, heart-shaped, pointed posteriorly, with spines and pubescence (Fig. 1d). Legs long and strong, clothed with hairs and spines. Leg formula 4312 and the measurements (mm) of different leg segments are shown in Table 1.

Abdomen: Nearly oval, clothed with fine pubescence and spines; dorsum decorated, posterolateral spinnerets elongate, cylindrical and with apical cap, ventrally pale; epigyne and internal genitalia as in figs. 1e and 1f.

Male: Male slightly smaller than female. Male palp typical; tibia with sharp apophysis. Embolus long and thin, with pointed tip. Tegulum inflated, with long circular sperm duct (Figure 1g-h).

Holotype: 1 female, from district Jhenaidah, Bangladesh.

Allotype: 1 male, from district Jhenaidah, Bangladesh.

Paratype: 2 females, data collected from the same locality.

Etymology: The species is named in honour of the name of famous Indian Arachnologist Dr. B. K. Tikader (Former Director, Zoological Survey of India).

Distribution: Bangladesh (District Jhenaidah).

Remarks: This new species *Ocyale tikaderi* n. sp. resembles *O. atalanta* Audouin in general appearance but differs from the latter and also of other congeners in having the following diagnostic characters—

- Decoration of cephalothorax and basal black patch/band of eyes completely different;
- Papal organs different from the latter;
- Epigynum and internal genitalia also different
- Cheliceral fang and marginal teeth also different from the latter
- Structure of maxillae, labium, sternum and abdominal dorsum completely different from *O. atalanta* Audouin and others.

Therefore, the species, may be described as new to science.

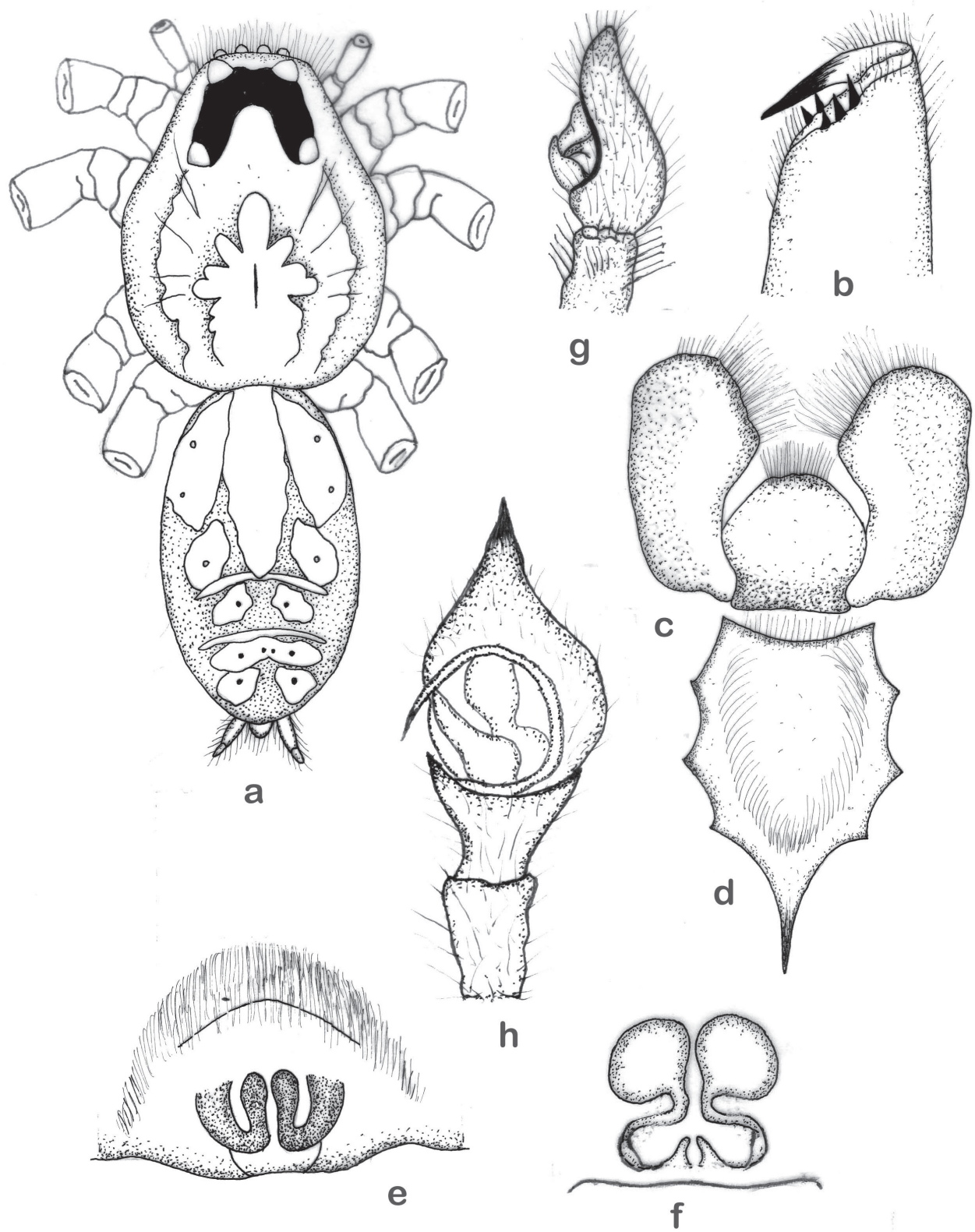


Figure 1. *Ocyale tikaderi* n. sp. (a) Whole body (dorsal view), (b) Chelicerae, (c) Maxillae and labium, (d) Sternum, (e) Epigynum, (f) Internal genitalia, (g) Male palp (lateral view), (h) Male palp (ventral view).



Figure 2. *Ocyale tikaderi* n. sp. (a) Male, (b) Female.

Table 1. Measurements (mm) of different legsegments of female *Ocyale tikaderi* n. sp

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.90/1.90	0.80/0.80	2.10/2.10	1.80/1.80	1.50/1.50	8.10/8.10
II	1.80/1.80	0.70/0.70	2.00/2.00	1.70/1.70	1.40/1.40	7.60/7.60
III	2.00/2.00	0.90/0.90	2.00/2.00	2.00/2.00	1.40/1.40	8.30/8.30
IV	2.15/2.15	0.90/0.90	2.25/2.25	2.00/2.00	1.60/1.60	8.90/8.90

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